Dr. John A. Johnson

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Research and development in sensing and control, especially ultrasonic sensors and exotic control techniques

Licensing information

For information on licensing INL technologies such as those developed by Dr. Johnson, contact the Lead Account Executive for Industrial Processing and Manufacturing:

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Education: Dr. Johnson has degrees in physics from Grinnell College (B.A., 1965), Carnegie Institute of Technology (M.S., 1967), and Carnegie-Mellon University (Ph.D., 1970).

Work experience: Dr. Johnson taught physics at Kenyon College in Gambier, Ohio and Wittenberg University in Springfield, Ohio from 1969 to 1979. Then he did research and development at INEL from 1979 until his retirement from INEEL in 2001.

Professional endeavors: Dr. Johnson has worked on a broad range of sensing and control technologies. He studied various sensing methods including ultrasonic, radiographic, video, and electrical. He incorporated these techniques in research and development of welding, nondestructive evaluation, and bioprocessing systems. He applied the methods of signal processing, computer modeling, control theory, neural networks, and fuzzy logic to the analysis and control of these systems. Dr. Johnson was active in ASM and AWS and served twice as cochair of conference Advances in Welding Research.

Patents:

U.S. Patent No. 6,792,336 – Learning-Based Controller for Biotechnology Processing and Method of Use

U.S. Patent No. 6,484,584 – Method for the Concurrent Inspection of Partially Completed Welds

U.S. Patent No. 6,365,873 – Apparatus for the Concurrent Inspection of Partially Completed Welds

U.S. Patent No. 6,363,787 – Apparatus and Method for Measuring the Thickness of a Coating

U.S. Patent No. 6,236,017 – Method and Apparatus for Assessing Weld Quality

U.S. Patent No. 6,178,819 – Inspection Apparatus for Evaluating a Partially Completed Weld

U.S. Patent No. 6,125,705 – Apparatus for the Concurrent Ultrasonic Inspection of Partially Completed Welds

U.S. Patent No. 5,117,440 – Digital Quadrature Phase Detection

U.S. Patent No. 5,048,969 – Piezoelectric Measurement of Laser Power

U.S. Patent No. 4,995,260 – Nondestructive Materials Characterization

U.S. Patent No. 4,712,772 – Concurrent Ultrasonic Weld Evaluation System